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OCT 18 1939

THE JOURNAL OF PHILOSOPHY

VOL. XXXVI, NO. 21: OCTOBER 12, 1939

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PUBLISHED FORTNIGHTLY

BY THE

JOURNAL OF PHILOSOPHY, INC.

THE JOURNAL OF PHILOSOPHY

EDITORS: Frederick J. E. Woodbridge, Wendell T. Bush, Herbert W. Schneider, John H. Randall, Jr., Ernest Nagel.

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THE JOURNAL OF PHILOSOPHY is owned by the Journal of Philosophy, Inc., 515 West 116th Street, New York, and published fortnightly at Lancaster, Pa. President, Wendell T. Bush; Vice-President, Frederick J. E. Woodbridge; Treasurer, Herbert W. Schneider; Secretary, Iris Wilder Dean.

Communications to the editors should be addressed, Columbia University, New York. Subscriptions and advertisements should be sent to THE JOURNAL OF PHILOSOPHY, Prince and Lemon Streets, Lancaster, Pa., or 515 West 116th Street, New York. The annual subscription price (twenty-six numbers) is $4.00. The price of single numbers is 20 cents, except the annual bibliography number, the price of which is $1.00. Advertising rates will be forwarded on application.

Entered as second class matter, March 18, 1921, at the Post Office at Lancaster, Pa., under Act of Congress of March 3, 1879.

Just Off the Press:

THE PHILOSOPHY OF JOHN DEWEY

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VOLUME XXXVI, No. 21 OCTOBER 12, 1939

THE JOURNAL OF PHILOSOPHY

A SYMPOSIUM OF REVIEWS OF JOHN DEWEY'S *LOGIC: THE THEORY OF INQUIRY*[1]

PROFESSOR DEWEY: LOGICIAN—ONTOLOGICIAN

IT was all but inevitable that the editors of this JOURNAL should have planned for the celebration of Professor Dewey's eightieth birthday by devoting an issue to a symposium on his recently published *Logic: The Theory of Inquiry*. As one of his many admirers, one who has been immeasurably indebted to him, I deem it a great honor to have been invited to take part.

Within a ten-year span that included the beginning of our century, many things were happening in the intellectual world, each of which at the time seemed as the arising of a little cloud out of the sea, like a man's hand; and there was no prophet to foretell what was to follow. In the realm of philosophy William James delivered an address before the Philosophical Union of the University of California on "Philosophical Conceptions and Practical Results." John Dewey contributed four essays to a volume of the Decennial Publications of the University of Chicago, entitled *Studies in Logical Theory*.[2] There followed other lectures and papers by these two philosophers, and a storm arose. The commotion has not yet subsided. On the contrary, what has come to be known as "Dewey's instrumentalism" is now accepted as a permanent feature of our philosophical climate.

That the acceptance has been gradual has been due in part to Mr. Dewey's own gradual development of his logical theory. In fact it was not till within the last year that we have had a systematic presentation of it, showing the articulation of its various elements. The completeness of this presentation is evidenced by the fact that all the important topics usually considered logical now find a place in the theory, a place determined by its ruling motif. This motif is that logic is the theory of inquiry, an inquiry

[1] *Logic: The Theory of Inquiry*. JOHN DEWEY. New York: Henry Holt and Company. 1938. viii + 546 pp. $3.00.

[2] In what follows, this volume will be referred to briefly as *Studies*, and *Logic: The Theory of Inquiry* as *Logic*. All page references without further identification will be to the latter volume.

into inquiry. A mere glance at the Index shows that nothing has been left out, and the organization of the material into a system has the appearance of having been accomplished by the motif itself. It would almost seem as if the author were not the author but an amanuensis taking dictation from the motif.

The participants in this symposium have been asked for "a considered examination of Mr. Dewey's contributions to logic," "an appraisal and criticism of the whole body of his work in that field." This is a large order, and to fill it would require a volume as large as the *Logic* itself. His contribution consists not only in a positive logical theory, but also in criticisms of other theories. Criticism and construction have gone on concurrently in all of his work, and this is as of course it should be. No theory worth its salt bombinates *in vacuo*. Every live theory lives in an environment of other theories; and in its reaction to its environment it appropriates and rejects. In its turn it becomes part of the environment of other theories, which severally appropriate and reject from among its offerings. By this token, Mr. Dewey's theory has been and is intensely vital. It would be blindness to what is going on in logic today not to see that Mr. Dewey is a large part of what he now meets there. Even those, if there be any, who will have none of him are to a great extent what they are because of what in him they repudiate. I am glad that I am not one of them; for, like Mr. Dewey, "I have learned most from writers with whose positions I have in the end been compelled to disagree" (p. iv). But perhaps I should not say "in the end." In the end there may be more agreement than disagreement. At any rate, when I now come to speak of some of his great contributions to logical theory, it will be seen that there is a very large measure of agreement: recognition of this greatness is in so far a test of agreement.

Mr. Dewey has been in the vanguard of those who have fought to dislodge from their position, once thought impregnable, the logicians of the school of Absolute Idealism. When he began to fight, even most of the youngsters in logic were in that camp, which now is not indeed abandoned, but it is at least considerably depleted. This is largely the result of Mr. Dewey's work.

Again, Mr. Dewey recognizes and has brought others to recognize that logic is all of a piece with ontology. I know that this word is to him as a red rag to a bull: he uses it as such in challenging *other* bulls. But this is perhaps because it has never occurred to him that the word can ever be used except in a malicious sense. Only those who have "perverse" views of what it is "to be" are for him "ontological." But he himself has very definite

views as to the nature of *being*. He began to tell us something of these views in his paper, "The Postulate of Immediate Empiricism" (in this JOURNAL, Vol. II, 1905, pp. 393–399), and he gave us a fuller statement in his Carus Lectures. If "ontology" is employed in its etymological sense, these views are as ontological as Aristotle's. In calling them ontological I do not mean to disparage, I mean to praise. How can any logical theory be entirely satisfactory if it is not inextricably tied up with an ontology? In the natural sciences it is coming to be recognized that hard and fast partitions between this and that special science must be broken down—as they are actually breaking down—if we are to have any adequate special science. And so it should be in philosophy. A logical theory without an ontology as its identical twin is not even an adequate *logical* theory. And by this test, Mr. Dewey's logical theory passes muster as adequate, since his logic is, to use another metaphor, interwoven with his ontological experientialism as warp of its woof and woof of its warp.

Still another great contribution to logical theory is Mr. Dewey's insistence that all logical theories, including his own, are hypotheses, to be tested in the continuum of inquiry. The *a priori* has been abandoned in all other scientific studies: why should it be held fast in logic? Mr. Dewey assumes that inquiry is a continuous process which develops its own standards by continuous self-correction. Since logic is itself a continuous inquiry—inquiry into inquiry—it likewise is autonomous. I can not but marvel at the skill he has displayed in fitting the various elements found in the proximate subject-matter of logic, each into its place in the operation of inquiry *as a going concern*. He does not claim that this work is complete. He calls his treatise "introductory," and looks to others to develop what he has initiated, "a theory of logic that is in thorough accord with all the best authenticated methods of attaining knowledge" (p. v).

For these reasons and for others that lack of space prevents mentioning here, it is my "considered" judgment that Mr. Dewey's work in the field of logic has won for him a place among the world's great logicians.

However, the situation in which this work leaves me is, to some extent, "disturbed, troubled, ambiguous, confused, full of conflicting tendencies, obscure, etc." (p. 105). This situation is also "clearly objective" (*Studies*, p. 38). I can mention only one or two of its perplexities.

From start to finish Mr. Dewey has been iteratively emphatic in maintaining that "conversion of eventual functions into antecedent existence [is] *the* philosophic fallacy, whether it be per-

formed in behalf of mathematical subsistences, esthetic essences, the purely physical order of nature, or God."[3] For the present I am interested in the "fallacy" only as it concerns "the purely physical order of nature," and it is with reference to this field alone that I wish to question Mr. Dewey's right to call such a conversion a fallacy.

Mr. Dewey himself in his *Logic* accepts the assertions of science as warranted, if they are made after the most careful use of existential and conceptual means (or "ideas") in conducting the inquiries that eventuate in these assertions: for him they are the best-warranted assertions obtainable up to date. But in almost every one, if not in every one, of these assertions, the content of the idea that is proved by the issue to have the eventual function of bringing about the settled outcome of the inquiry, is "converted into antecedent existence." For instance Einstein had the idea that the path of any light-ray that passes through the gravitational field of the sun is deflected during passage by a certain amount. This idea guided astronomers to the adoption of appropriate existential means for testing the idea, and the outcome of that test was the judgment that *existentially* the path of such light *is* so deflected. Not only the light that was actually used in making the photographs in the experiment, but all light-rays that have ever passed through that gravitational field and through similar fields, are now asserted by physicists to have been deflected during passage, in accordance with Einstein's idea. Again, Mr. Dewey says that "a geologist, on the ground of the traits of a rock here and now existent and here and now perceived, infers the *existence* of an animal of a certain species living so many hundreds of thousands of years ago" (p. 466. I have supplied the italics). If these are not instances of "conversion of eventual functions into antecedent existence," I must confess that I do not know what the quoted phrase means.

Of course no scientist, unless he be a pre-Jamesian psychologist, reads back his results into the "preliminary situation" *as it was then immediately experienced by him.* He reads them back into "the larger natural world," of which Mr. Dewey says that "of course [it] exists independently of the organism" (pp. 33–34).[4]

[3] *Experience and Nature,* p. 29. Cf. *Studies,* p. 37, *Essays in Experimental Logic,* pp. 121–122.

[4] Cf. *Experience and Nature,* pp. 43–44: "The visible is set in the invisible; and in the end what is unseen decides what happens in the seen; the tangible rests precariously upon the untouched and ungrasped."

If space permitted, I should like to discuss the question whether Mr. Dewey has a pet fallacy of his own, that of converting immediately experienced precariousness into a physical character of the world we live in (*op. cit.,* p. 45). I am not sure that he does, but the whole question is very perplexing.

If such reading back be a fallacy, why not call it the *scientist's* fallacy, rather than the psychologist's or the philosophic fallacy?

But how about "logical forms" as distinguished from "ideas" as "conceptual means"? I say "as distinguished" although I do not find in the work before us any very clearly drawn distinction; but whatever be the distinction, Mr. Dewey's thesis is that logical forms are not to be read back into antecedent reality, because "while inquiry into inquiry is the *causa cognoscendi* of logical forms, primary inquiry is itself *causa essendi* of the forms which inquiry into inquiry discloses" (p. 4). Now, if the contents of *ideas* may, after successful inquiry under controlled conditions, be asserted of antecedent existence, why may not *logical forms* also, after successful inquiry under controlled conditions, be thus asserted? Are we not here confronted with a choice of postulates? Mr. Dewey postulates that such logical forms as "kinds" and "universals" and causal relations and mathematical functions are only modes of operating upon subject-matter under investigation, and come into being only when inquiry is instituted. I prefer the postulate that the logical forms *that serve to resolve a problematic situation* serve that purpose because they are actually the forms of the subject-matter under investigation—not of course of the subject-matter as it was immediately experienced when inquiry started, but as successful inquiry shows the subject-matter to have been in "the larger natural world" within which it has its setting. Mr. Dewey regards such a position as untenable. Although he first presents his theory as a postulate, he ends by maintaining that his is "the proper interpretation" (p. 458), "the only view that provides a consistent logical interpretation" of at least some of the *"facts"* (pp. 453–454). I question this assertion; here I can not do more. However, I can say that I agree with Mr. Dewey that the imperative, as well as most promising, task for logic is to "develop a theory . . . that is in thorough accord with all the best authenticated methods of attaining knowledge," and I acclaim the work he has done to that end as an invaluable contribution to logical theory.

I congratulate him, but I congratulate the rest of us more, that at fourscore he gives promise of still many years of equally important work.

EVANDER BRADLEY MCGILVARY.

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THE NEW LOGIC AND THE OLD

Professor Dewey says of his recent volume, *Logic: The Theory of Inquiry,* that it "is marked in particular" by application of

the author's earlier ideas, here re-affirmed in principle, "to interpretation of the forms and formal relations that constitute the standard material of logical tradition." As a consequence of this interpretation, logical tradition is explicitly called in question with reference to its basal assumptions. This new challenge to the tradition seems to me essentially the same as that presented in the author's earlier writings. Several years ago I undertook to discuss the earlier formulation and to indicate the confusion involved in it.[1] The new formulation carries with it the same confusion, and I propose to devote the short space here available to an attempt once again to state the difficulty. I am sure either that the difficulty belongs to the author's own construction or that I fail to follow his statement at crucial points. Naturally, I am predisposed in favor of the first alternative; but if the latter states the case, my remarks may at least serve to show that the change of venue has not entirely succeeded in clarifying fundamental issues. In either case, the main purpose of the following remarks is constructive in respect of the author's own standpoint; and because of my agreement with so much of what is said my criticism, however mistaken, can hardly be quite external.

By authority of the chapter on "The Needed Reform of Logic," logical tradition is made to rest in the end on an assumption which is erroneous if the central thesis of the present volume is true. That assumption is said to be "the theory of antecedent subjects given ready-made to predication." And, as is emphasized in a footnote appended to this passage, "The underlying logical point at issue is not the *special* Aristotelian conception of substance, but the idea that *any* kind of subject, such as 'this' or a sense datum, can be given ready-made to predication."[2]

Now whatever may or may not be said about Aristotle's view of logic or the views of the modern formalists with reference to the point at issue, I should have supposed it to be historically certain that the tradition in logical theory commonly called idealistic does not rest on the assumption in question, but that it does rest on the negation of that assumption. If there is any one doctrine which may be said to be fundamental within that tradition, surely it is precisely the doctrine that the subject is everywhere given with a penumbral aspect; that the subject is given "ready-made" is even explicitly repudiated, and its repudiation is advocated as the beginning of philosophical wisdom.[3]

[1] Cf. the article, "On the Second Copernican Revolution in Philosophy," *The Philosophical Review*, Vol. XLI (1932), pp. 107–129.

[2] P. 91. The italics are the author's.

[3] In the volume, *The Idealistic Argument in Recent British and American*

If that part of logical tradition at least is not to be left standing unscathed, then something further is needed than proof that no subject is given ready-made to predication. What further is needed is the broader denial that subjects are in any sense whatever given to predication. Sometimes the author's central thesis is interpreted by him as if it entailed this stronger negation; this is the interpretation of it with which he usually goes gunning for "antecedent subjects." Generally, however, the central thesis is not thus taken; on the contrary, it is so construed as to reject this interpretation as entirely too "subjectivistic." But in this latter construction the author's position on the point at issue does not differ in principle from the idealistic tradition in logical theory. And all of this constitutes the main confusion of which I complain and in respect of which light is sorely needed if the logic of inquiry is to establish its claim to essential novelty in the history of logic.

The central theme of the new logic is stated as follows: "Logical forms accrue to subject-matter when the latter is subjected to controlled inquiry."[4] The development of this theme, however, runs in two contrary directions. In one direction, it reads as if it says that the matrix of logical forms is exclusively the procedure or on occasion even the technique of inquiry into subject-matter, which itself is not held to be in any degree determinant of these forms; in this direction, one is told that logical forms are formulations of "habits" of inquiry. In another direction, and generally, the thesis is read as if it says that subject-matter is itself efficacious in the determination of logical forms, that inquiry is a peculiar sort of procedure conditioned by the subject-matter inquired into; in this direction, one finds logical forms arising only in "inference" or "discourse" which is inquiry grounded in the structure of a "situation."

As has already been intimated, the first of these two readings is implicit in the criticisms of "antecedent subjects," which are denied on the ground that inquiry, within which alone logical forms emerge, is an operational technique and procedure by means of which the subject of predication is functionally "taken." In such passages as the following, however, the reading becomes tol-

Philosophy, I have considered the point in some detail with reference to Bradley, Bosanquet, and Royce. That Hegel's writings must be similarly interpreted I should hold to be even obvious. The first part of the analysis in the *Phenomenology*, for example, is avowedly designed to exhibit the instability of the "this" of sense experience which is throughout problematic; and the grandiose performance of the *Logic* undertakes to do the same with reference to the most "immediate" logical category.

[4] P. 101.

erably explicit. "It can hardly be denied that there are habits of inference and that they may be formulated as rules or principles. If there are such habits as are necessary to conduct every successful inferential inquiry, then the formulations that express them will be logical principles of all inquiries." Or, again: "A generality is involved in every expectation as a case of a habit that institutes readiness to act (operate) in a specified way. . . . Explicit formulation in propositional form of the expectation, together with active use of the formulation as a means of controlling and checking further operations in the continuum of inquiry, confers upon the potentiality a definite logical form." Or, again: "We are brought to the conclusion that it is modes of *active response* [author's italics] which are the ground of generality of logical form, not the existential immediate qualities of that which is responded to." Other passages to the same effect might readily be found, but the tenor of them all is perhaps essentially caught up in the phrase, "habits of inference."[5]

If such passages are taken to mean what *prima facie* at least they say, namely, that logical forms and principles are formulations of habits of inference, and if further it be assumed that such habits do not differ in any important respects from habits like walking and clutching which are not ordinarily supposed to involve inference, then it certainly follows that the procedure of inquiry as a biologically conditioned habit is the matrix of logical forms. And since predication is everywhere but an instance of such a habit, it must be held not only that subjects are not in any sense given to predication, but also that the very notion of "antecedent subjects" to be given is without content and void.

Hereupon, to be sure, the entire logical tradition falls into ruin. For that tradition does unquestionably depend on the assumption that there are antecedent subjects and that these subjects are somehow given to predication. But it must not be overlooked that the interpretation of the central thesis of the new logic which thus undermines the tradition also undermines itself by rendering itself as "subjectivistic" as logic was ever conceived to be when formulated in "mentalistic" terms. On this reading of the logic of inquiry the primary difference between it and Hume's conception, for example, is a terminological one; in the former inference is identified with an "expectation" expressive of the behavior of the biological organism instead of, as with Hume, a "tendency to feign" grounded in the associational complex of the "psychical" mechanism. It is bio-centric instead of psychocentric, but it remains a purely "personal" response.

[5] The passages quoted are from pages 13, 251–252.

Of course, this subjectivistic reading of the logic of inquiry is generally explicitly repudiated. Emphasis is usually placed on the stability of the habit of inference, its fruitage in consequences as an operational procedure; and the consequences are naturally drawn from the only source available, namely, the "situation." Thus subject-matter is made foundational within the continuum of inquiry and consequently in the determination of logical forms and principles. In short, the central thesis of the new logic is commonly given the second of the two readings above noted.

That this reading is the one officially accredited seems to me quite clear. Inquiry is defined as "the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole."[6] And a situation is said to be "*not* a single object or event or set of objects and events," but objects and events in "a contextual whole."[7] Thus objects and events, presumably in the good old-fashioned realistic sense in which they are simply what they are, become fundamental aspects of the continuum of inquiry; they are made determinative there. We do not form a "kind" of that group of persons who happen to be shoemakers and cross-eyed and bald, for example, because "such a set of conjoined traits is practically worthless for the *purpose of inference.*"[8] And it is thus worthless, because "inference is conditioned upon an existential connection which may be called *involvement.* The problems of inference have to do with discovery [*sic*] of *what* conditions are involved with one another and *how* they are involved."[9] Likewise, in the realm of abstract reasoning or "discourse" continuity is also conditioned by subject-matter; the only difference is that there the conditioning circumstance is "constituted by the *implicatory* relation." The continuum of inquiry, in short, is exhibited only in situations which are meet for inference or discourse, and these are situations within which the relations of involvement or implication obtain. Since these relations obtain only within some sort of subject-matter, all of this is equivalent to saying that subject-matter is everywhere in inquiry systemic and imperious. It is the condition of both inference and discourse, the condition of the emergence of logical forms which "accrue"

[6] Pp. 104–105.
[7] P. 66.
[8] P. 268; author's italics.
[9] P. 278; author's italics.

only to a certain sort of subject-matter, namely, that which is "inherently doubtful" [10] and amenable to controlled inquiry.

The traditional distinctions of subject, predicate, and copula fall within such situations. "Observed facts of the case in their dual function of bringing the problem to light and of providing evidential material with respect to its solution constitute what has traditionally been called the *subject*. The conceptual contents which anticipate a possible solution and which direct observational operations constitute what has traditionally been called the *predicate*. Their functional and operative correspondence with each other constitutes the *copula*." [11] But surely, if all of this be so, the subject is always there antecedent to predication and is always in some sense given to it. No doubt, the subject can not be a mere "this" given ready-made to predication; but "it is just what it existentially is" and there is "no incompatibility" between this fact and the further fact that "it is the needed evidential ground of a definite characterization." [12] Even if one should go the length of saying that the subject is actually generated by the predicate because it is "taken" by the latter in its directive function in respect of "observational operations," one would still have to admit that the total "situation" within which the subject-copula-predicate distinctions fall is somehow given to inquiry. And this is in fact admitted. "Apart from an inclusive situation which determines *in correspondence with each other* the material that constitutes the observed singular this and the kind of characterizing predicate applicable to it, predication is totally arbitrary and ungrounded. There must be some one *question* to which both the subject 'this' and the predicate (say, *Washington Monument*) are relevant. That question grows out of and is controlled by some total situation. Otherwise propositions made are pointless." [13] For "the operations that institute a 'this' as subject are always selective-restrictive of something from out of a larger field." [14]

With this, however, we are in principle back in the view of predication advocated long ago by the idealistic tradition in logical theory. Of course, there is a difference in terminology: what in the tradition is named "reality" or "the whole" or "a world"

[10] "*We* are doubtful because the situation is inherently doubtful. . . . The habit of disposing of the doubtful as if it belonged only to *us* rather than to the existential situation in which we are caught and implicated is an inheritance from subjectivistic psychology" (pp. 105–106; author's italics).

[11] Pp. 124–125.

[12] P. 127.

[13] P. 126; author's italics.

[14] P. 127.

is here christened "the problematic situation" or "the continuum of inquiry" or "judgment" taken as "the settled outcome of inquiry . . . the concluding objects that emerge from inquiry in their status of being conclusive."[15] This difference in terminology is indeed indicative of a difference of conception and emphasis important in the end for philosophical construction. But so far at least as "the underlying logical point at issue" is concerned, there is no fundamental difference between the two theories. Both hold that something operationally involved in predication is in fact antecedent to it and is somehow given to it—namely, the broad subject-matter, whether called by the name *subject* or not, with reference to which the techniques and procedures of inference and discourse are oriented and are determinable.

Explicit acknowledgment of this essential identity between the logic of inquiry and that of the idealistic tradition would, of course, entail rejection of the claim to novelty made in behalf of the former. It would also call for revision of much that is said in criticism of "psychical" processes. But all of this is no sound reason why the acknowledgment should not be made. And, in any event, it is, and is at least tacitly admitted to be, the only alternative to reducing the new logic to relativistic terms, which are none the less "subjectivistic" because they are drawn from biology rather than from "mentalistic" psychology.

The conclusion of the preceding remarks is, indeed, a repetition in principle of the conclusion advocated in the earlier article referred to at the beginning. But there is nothing surprising about this, in view of the fact that the logical theory here under survey is avowedly grounded in the same epistemology with which that earlier discussion was concerned. The confusion as here stated is but a new formulation of the confusion there in question, upon which in the end it rests. Should it be supposed that the way out is to renounce any and every epistemological basis for logical theory, however, such a supposition would be only the inauguration of a new error. Any theory whatsoever of logical subject-matter inevitably presupposes some theory of epistemological subject-matter which is foundational: the predicament, if predicament it be, ought frankly to be recognized and accepted. In my opinion, not the least service rendered to the study of logic by Professor Dewey's very serviceable volume lies precisely in its emphasis on this relationship.[16] For in this emphasis it has called attention to the fundamental consideration, sometimes forgotten or

[15] P. 120; cf. the entire chapter on "The Construction of Judgment."

[16] In this statement I am, of course, referring to epistemology as the discipline concerned with the problem of knowledge.

even denied, that any serious treatment of "forms and formal relations" necessarily sets them within the context of some view of the basal facts of *meaning* and *relevancy* and that any thoroughgoing treatment of this subject-matter can not stop short of explicit recognition and defense of the accompanying context.

G. WATTS CUNNINGHAM.

CORNELL UNIVERSITY.

MEANING AND ACTION

To say anything new and important about Dewey's logic would be, I suspect, beyond my powers. I shall not attempt it but, instead, wish to offer here brief comment on one conception of his, which I take to be central for his logic and for his point of view in general, and which I believe to be both correct and important: the conception, namely, that meaning and action are essentially connected.

Dewey does not write by the method of theorem and corollary; and one does not find any single statement into which the full significance of this thesis has been compressed and from which all its implications can be drawn. But what is here in question is no platitude, to the effect that since humans are active beings their meanings are likely to reflect their interests and their practice. Nor does it merely serve to point an emphasis, characteristic of the theory in which it appears but setting it in opposition to no other which could plausibly be maintained. Rather, it is the distinctive conception, incompatible with most views, that the cognitive or meaning situation does not admit of bifurcation into an activity of the knower and a preformed object which is contemplated; that knowing or meaning is integral with other activities which shape the objects to which they are addressed; that meanings themselves serve to frame the situations of action into which they enter, and exercise an operational force upon what they serve to formulate. It is implied that an idea or a meaning, apart from some possible action and the reality in which it should eventuate, is a fictitious entity not found in human thinking. And conversely, it is implied that the objects of knowledge, without reference to meanings and the actions to which they may lead, are equally fictitious. From this conception there issues a sharp challenge to those views—comprising the greater number—which would portray the reality known as "antecedent" to the activity of knowing, and to "spectator" theories of knowledge which would represent the knower as a disinterested contemplator of a ready-made world which *qua* knower he does not affect.

So far from being a commonplace, this thesis, when fully

grasped, has something of the aspect of a hard saying. Almost it is as if Dewey had claimed that all meanings and all inquiry are subject to a kind of indeterminacy principle. Thought itself displaces or transforms that which it means or inquires about: but if it thus affects the object concerned, how can inquiry disclose what it sets out to reveal? One can not suppose that this thesis has met with that acquiescence which the relative absence of discussion would suggest. Its force has been insufficiently felt. This conception has not been generally accepted by philosophic readers; but it has been answered mainly by neglect.

Yet however contrary to prevailing views, or even paradoxical, this conception may be, the considerations which would enforce it are fairly obvious. That thinking, meaning, knowing are other than—as Dewey claims—activities performed at need, is *prima facie* implausible. But if they are thus instigated, an effect of them upon that to which they are directed is implied. That the activity of the knower is itself a part of the world-process and a factor in determining its events, could not easily be denied. But if it is such, then plainly the conception that objects of inquiry are merely given to a contemplative knower, must be fundamentally erroneous.

For example, empirical knowledge, on almost any view, will be admitted to have the aspect or the pervasive implication of prediction. Any report of empirical fact, and any generalization such as a law of natural science, leads either to categorical predictions of future events or to hypothetical predictions that such and such will take place under certain specifiable circumstances. And that the main if not the exclusive motive of science and empirical knowledge in general is found in the possibility of such predictions, will be denied by no one. Yet if the world-process were that kind of antecedently determined enchainment of events which it is often supposed that science must take it to be, in order that such prediction may be possible and valid, then precisely in being thus predictable reality must be inaccessible to and unalterable by any activity of the knower. In that case, what boots it to know this completely inevitable futurity? It requires no initiative on our part—cognitive or of any other sort—to "avoid the impossible and coöperate with the inevitable."

Such considerations might perhaps meet with the reply that our aim in knowing what is predetermined lies in something else; that we wish to know whether it will rain, not in order to affect the weather, but in order to know whether to carry an umbrella. But if this way of meeting the difficulty—suggested by the commonsense answer in our trivial example—were to be taken as a satisfactory kind of analysis of situations in which knowledge and action

are involved, it would lead to difficulties which are serious if not insuperable. Because it would seem to assume that there are two sorts of futurities; those which are predetermined for our inquiry and about which alone unconditional predictions can be made—"It will rain"—and those which are not thus antecedently determined —"I shall get wet"—which depend on what we do in the light of this knowledge. The former class are inaccessible to our action; the latter are not cognitions of objective reality but matters of decision. By implication, the world-process must be viewed as divisible into those events which are unconditionally predictable and about which we can do nothing, and those our activity can affect but which are not the objects of any cognitive inquiry. Fully carried out, this would lead to the conclusion that knowledge —or at least knowledge as having implications for the future—is exclusively of the inevitable; but that this knowledge is of practical value exclusively for its bearing on what is unpredictable.

The point is not so much that one who should elevate the attitude suggested to the status of philosophical analysis would stand in danger of violating his own systematic presuppositions—though that is a fact. It is not consistently possible to carry out such a double-aspect view of the world: to think of it as if one could, *qua* knower, view it as made up of predetermined and unbreakable chains of events, with one's self outside and looking on; and then, having through such passive receptivity acquired knowledge, could step out of one's contemplative rôle and take a hand in shaping the future thus predicted. One can not in this fashion place the subject, who both knows and acts and whose knowing is integral with and for the sake of his acting, both in and out of the process of events to which his knowing and his acting are addressed. But I say that this is hardly the point: probably that "universal determinism" sometimes supposed to be an essential presupposition of science is not something to be judged false or true but merely a pedantic fable; such that even if admitted in words it could find no application to any actual situation in which a human investigator has a real purpose in prosecuting an inquiry.

The more important point is one which concerns the meaning of our predictions themselves—and so far as empirical knowledge is implicitly predictive, the meaning of what we know in general. Such meaning can not exclude but must include the significance of the knower's activity. Because the validity of a genuinely cognitive meaning must be capable of verification. That a substantive meaning applies or does not apply, that a proposition is true or false, must be capable of test. And what tests are pertinent, must be implicit in the meanings themselves. Whoever speaks of X but

does not know how it could be determined whether a presented thing is X or not, means nothing by his term: whoever asserts P but could not specify how the truth or falsity of P should be determined, makes no genuinely meaningful statement. So much of the pragmatic conception of meaning is quite generally accepted, and could not well be denied; though hairs may be split in the interpretation of it.

The meaning of a prediction, or of a cognition implying predictions, must be found in some future possible experience or experiences which would confirm its truth. *But there are no such verifying or confirming experiences which can be predicted without reference to the activity of the subject.* There are no future experiences which, concretely enough specified, are inevitable. There could be no experience of ours genuinely foreseeable but such that literally we could do nothing about it. In fact, precisely the point of foreseeing what is called "inevitable"—and it is seldom the experience itself which is so called—is that at least we may blunt the poignant painfulness of what is anticipated, or sharpen and clarify its satisfying quality, by our foresight. And in the case of most predictable eventualities, we can do something more than merely to modify their character as experienced by going forward to meet them in an altered attitude.

Furthermore, there is no dichotomy between categorically predictable eventualities—"It will rain"—and hypothetical and avoidable ones—"I shall get wet." All verifications, all predictable confirming experiences belong in the second classification. The fact of rain is verifiable only by some manner of experiencing it; by getting wet, or by seeing it, or hearing it, or . . . . But we shall not get wet if we protect ourselves; and there would be some manner or another of avoiding any one of these verifying experiences. We might refuse altogether to put our statement to the test. Each such possible verification turns out, on examination, to be some eventuality which will accrue or not accrue according as we adopt or refuse to adopt some attitude or course of action. And beyond such future possible experiences which would verify it, "It will rain" means nothing. Put in general terms, the meaning of any "fixed" or "objective" fact which could be believed in or asserted has, as the final terms of its analysis, some set of hypothetical propositions, the hypotheses in which concern some mode of action. In this nature of our empirical meanings lies the connection between knowing and doing, and the explanation of the fact that knowledge of that reality which "is what it is independently of being known" has application to our practice.

There would not be space here for comment on the consequences

of this point concerning meanings. And, obviously, my discussion has been inadequate to the point itself. It is the less necessary to elaborate these implications because so many of them have been made clear in Dewey's writings.

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SOME LEADING PRINCIPLES OF PROFESSOR DEWEY'S LOGICAL THEORY

The conception of logic which Professor Dewey has been proposing since the turn of the century is by now so familiar that it would be pointless to restate it in detail in this review of his latest formulation of it. But no careful reader of this treatise, however faithfully he may have followed Professor Dewey's writings, can fail to be stirred by the energy with which it recaptures the splendid ideal of logic as an organon for the effective conduct of inquiry; nor can he help being impressed by the bold power with which it re-interprets, on the basis of the dominant idea of inquiry as a mediatory process with logical principles as its tools, the themes of traditional logic and epistemology and the diversely oriented analyses of contemporary thinkers. Professor Dewey's previous contributions to logical theory, scattered through a score of books, now fall into a more definite pattern than before, with the consequence that the grounds of his dissent from, as well as of his dependence upon, traditional and contemporary schools are made more evident.

On the other hand, this volume also makes clear that Professor Dewey has not ceased to look upon his logical theory as a hypothesis, the detailed confirmation of which would have to be supplied by others in the future. His attention remains focussed primarily on the larger context within which logical principles operate, and in which they obtain a significance as something more than elements in a self-contained mathematical system; and even in this most complete formulation of his theory, the various functions which the principles of formal logic have as tools of inquiry are sketched with only enough detail to supply suggestive programs for further exploration. In consequence, the book offers a general underlying conception of logic with which many students will enthusiastically concur, while at the same time leaving them puzzled at or at issue with many of its special analyses. Professor Dewey explicitly recognizes the programmatic character of his reconstruction of logical theory, and like Peirce whom he admires he regards claims to finality as blocking the road to inquiry; accordingly, his inquiry into inquiry must be taken to mark only the beginning of a large project of continued research.

Professor Dewey is a naturalist in philosophy, and he writes

of logical forms and principles as would a naturalist in the familiar biological sense of the word. His treatise is a study of the morphology of inquiry, and it aims to exhibit, as a biologist might in connection with various forms and organs of life, the conditions under which logical forms occur and are developed, their specific functions, their dependence upon and their transformation of their environment, and their own interrelations on the basis of their contributions to the achievement of their objectives.

But Professor Dewey is not just a classificatory naturalist. His examination of logical principles is carried through in terms of an inclusive theory, according to which subject-matter acquires logical traits on being subjected to the differential physical transformations of inquiry; in consequence, logical principles are taken to formulate the empirically ascertained conditions which must be instituted if inquiry is to have a successful termination. This cardinal thesis has the force of a paradox, only as long as the methods and conclusions of inquiry are isolated from the contexts in which they operate and emerge by being examined solely on the basis of their finished formulations. The thesis is further clarified if it is noted that in Professor Dewey's usage the phrase "logical form" stands for the *way* in which selected features of a situation in which inquiry occurs *function* in it, while the phrase "logical principles" denotes a *mode of operation*—and not, as is sometimes the case among students of formal validity, for quasi-grammatical forms and rules. Just as plants and animals are studied to the best advantage only within their natural environment so that the distinguishing traits and uses of their various organs may be ascertained, so on Professor Dewey's view the specific techniques and principles of logic receive an adequate theoretical interpretation only by being exhibited in the rôles they play within the process of inquiry.

A variant of this general principle of contextual analysis controls all of Professor Dewey's writings: it requires that process and product be taken as correlative distinctions, so that neither can be understood or assigned a status in existence independently of the other. Thus, an effective use is made of this principle in Professor Dewey's discussion of ethical issues when he maintains that the character of means employed enters constitutively into the character of ends attained. Its special application to logical theory stipulates that the conclusions of inquiry must be construed in terms of the procedures used to establish them, and that objects of knowledge, conceived as products of inquiry, can not be assigned an existence antecedently to it.

This is not a suitable occasion for marshalling evidence for the principle as a sound precept of analysis; but in any case, the ap-

parently paradoxical features of Professor Dewey's logical theory follow from his whole-hearted acceptance of it. Consider, for example, his well-known thesis that the objects of knowledge do not have an existence antecedent to inquiry. It depends on the manifestly empirical claim, which must be decided on matter-of-fact grounds, that inquiry involves a physical reconstitution of its environing situation before the latter can function as an object of knowledge. But if this claim is warranted, then it does follow with the help of the above principle that objects of knowledge can not be intelligibly assigned an existential status prior to and in independence of specific inquiries.

Professor Dewey's refusal to read the conclusions of science except in terms of the operations of inquiry, as well as his interpretation of logical principles as rules for the conduct of inquiry rather than as formulations of ontological invariants, have brought forth the accusation that his philosophy confounds questions of validity and logical order with questions of origin and development. There is perhaps only a hair-line which divides a sound application of the principle of contextual analysis from a commission of the genetic fallacy; but it does not seem to me that Professor Dewey has stumbled across it into forbidden territory. He has simply applied to matters of logic the sort of analysis prized highly in the sciences. Thus, competent students would dismiss as thoroughly incompetent any proposal to assign meanings to such propositions as that light is corpuscular or that space is curved which neglects the complicated symbolic transformations needed before such statements can be given existential reference or which fails to note the technological apparatus required in order to implement them with a physical sense. Refusal to heed such proposals illustrates not the genetic fallacy but scientific caution and wisdom. Professor Dewey's similar insistence that logical principles be construed in terms of the relatively stable use that is made of them in inquiry is likewise free from the fallacy; for his insistence arises from a refusal to conceive principles as if their sole identifiable habitat were textbooks and treatises, and from a conviction that it is their function in inquiry which exhibits their sole meaning and relevance. There is clearly a difference between confusing questions of origin and validity, and assigning a meaning and a degree of adequacy to propositions wholly on the basis of the circumstances of their use.

In this brief appraisal of Professor Dewey's *Logic* it is not possible to examine the details of his reconstruction of the theory of inquiry. There is one special point, however, which seems to me worth while raising. The central technical innovation of his

theory is the interpretation of judgment as the settlement of an issue, so that a judgment involves the functional correlation of perceptual and conceptual material; and in elaborating this notion he introduces a set of parallel distinctions, of which the most important is the difference between generic and universal propositions. The intent of the parallel terms is to demarcate the rôles of perceptual and ideational material in inquiry, and Professor Dewey's explicit criticism of other writers on logic frequently takes the form that they have confounded them. Generic propositions, in brief, are said to have existential import referring to spatio-temporal connections between existents, and to be contingent even though warranted by inquiry; universal propositions express necessary relations between characters or possibilities, and may be valid even if no things exist with the required traits. For example, Professor Dewey declares that "All men are mortal" is generic, if it means that all men have died or will die; but that it is universal if it means that if anything is human then it is mortal—that is to say, if it asserts a necessary relation between the characters of being human and being mortal (pp. 256ff.).

The first point to observe about this distinction is that it can not be read off from the linguistic form of statements alone and that it refers to a difference of function in inquiry. Generic propositions are thus employed to identify and isolate perceptual material, and to prepare it as evidence for or against a proposed solution of the issue at hand; universals function as statements of possible operations and their consequences, to be instituted in the interest of solving the problem (p. 274). It is therefore confusing to have Professor Dewey himself offer certain propositions as categorically illustrating one or the other of these propositional forms, for example, the Newtonian formula for gravitation as a universal proposition. If the form of a proposition is its function, is he faithful to his general standpoint in citing such formulae, taken out of their specific contexts, as examples for his distinctions? Could not inquiries be found in which this formula helps to prepare existential material in order to identify it for the sake of other operations to be performed? But in the second place, the reader is left to wonder just what is the force of "necessary" in the account of universals as involving *necessary* relations between characters. Professor Dewey's statement of his distinction and his occasional illustrations of it invite the identification of generic propositions with what in current literature are called synthetic ones, and of universal propositions with analytic ones; and some of his readers have already succumbed to the temptation to interpret the distinction in such an unambiguous way. Such an

identification, however, simply will not do, in spite of Professor Dewey's occasional references to universal propositions as definitory in nature (e.g., p. 272). For he explicitly declares that universals formulate possible modes of acting, so that the execution of the operation prescribed by the proposition also tests its force and relevance for solving the problem at hand. But no analytic proposition, in the contemporary technical sense, would be tested in the way frequently proposed by Professor Dewey for his universals (cf. p. 264). Moreover, he distinguishes between two sorts of universal propositions, one kind being exemplified by propositions of mathematical physics (e.g., Newton's law of gravitation), and the other by propositions of mathematics (e.g., two plus two equals four); and he recognizes that the former kind do not exhaust the possibilities, so that they may have to be abandoned under the stress of factual demands, while the latter are apparently free from such limitations (p. 398). This subsidiary distinction only aggravates the puzzle as to what is to be understood by the specification that universals assert necessary relations between characters. It follows that the whole basis of his distinction between them and generic propositions remains obscure, while at the same time the grounds for his criticism of those logicians whom he calls "formalists" are not obviously relevant. Could he not be persuaded to restate the matter with greater clarity and fullness?

In so far as I understand the distinction between generic and universal propositions, it does not seem to me to be a sharp one, though it calls attention to important stages in the continuum of inquiry. Certain propositions, suggested but not derived from empirical material, may be asserted with confidence because the conditions for warranted assertions have been approximated for them. These propositions do not enter integrally into the theoretical framework of science, and their correction or even total abandonment does not involve a radical recasting of that framework; such propositions, I am suggesting, may be Professor Dewey's generic ones. On the other hand, some propositions gradually acquire such a commanding position in the set of warranted assertions of the period (in terms of comprehensiveness and deductive power), that they reach the status of leading principles of empirical analysis and in large measure control the general direction of research in the science of which they are a part. These propositions are not easily challenged by the facts of experience, not because they have no significant alternatives, but because to challenge them would involve a fundamental overhauling of the theoretical systems of science; they thus function as

assured procedural principles, no longer at the mercy of random experiments because suitable devices are provided for obviating apparent contradictions with experience without impairing their fruitfulness as guides to further inquiry. Such propositions seem to me to fall into Professor Dewey's first kind of universals. But the propositions of mathematics differ radically from those just mentioned. They are analytic, and though also instrumental in inquiry are instrumental in a different way. For their function is to make transitions in discourse, to facilitate calculations of various sorts, rather than to direct the analysis of empirical material or to formulate possible modes of action. The recognition of these distinctions seems to me fundamental for an adequate theory of inquiry; but while Professor Dewey does not overlook them, his discussions of them and of related topics do not constitute the most enlightening portions of his treatise.

In spite of its limitations as to details, no half-way sympathetic reader of this book can lay it down without the conviction that it offers a conception of logic which has its roots firmly attached to the procedures of science, and that its integral view of the subject ranks among the great visions of the day. Those who read it must acquire courage and inspiration to contribute their share toward completing the fundamental task which Professor Dewey has envisaged with such startling clarity and adequacy.

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COMMENTS AND CRITICISMS

DEWEY'S DOCTRINE OF THE SITUATION

Professor Dewey's conception of the *situation,* as presented in the fourth chapter of *Logic: the Theory of Inquiry,*[1] is not entirely clear. He himself suggests a contradiction, and leaves the problem with an obscure and inconclusive remark. An inspection of the passage[2] indicates that the difficulty is due to a simultaneous acceptance of two different positions, one of which can be stated by means of the following selections from the passage in question. "A situation is a whole in virtue of its immediately pervasive quality." A situation is not only a whole: it is also "individual" and "unique"—that is, "indivisible and unduplicable." Accordingly, "distinctions and relations are instituted *within* a situation.[3] . . . The presence of a situation as a universe of discourse is seen

[1] Cf. *Context and Thought,* Univ. of Calif. Press, 1931. Especially p. 212.

[2] Pp. 67–71.

[3] P. 68.

to be the encompassing and regulating condition of all discourse."[4] According to this position, a situation is an all-inclusive experienced esthetic whole, indivisible and unduplicable, which institutes distinctions and relations, controls experience, encompasses discourse, and regulates the selection and ordering of facts. As a universe of discourse, the situational whole is an object of knowledge. But the all-inclusive whole can be neither a content nor a product of knowledge. The whole institutes distinctions and relations within itself: hence knowledge is a function of the whole.

From the same passage statements of different character can be selected. A situation, says Dewey, is "an environing experienced world . . . the total complex environment."[5] Again, "Distinctions and relations are . . . recurrent and repeatable in different situations."[6] But if "distinctions and relations are instituted *within* a situation," how can there be more than one situation? There could not be a number of situations, for number involves distinctions and relations, and these must be encompassed in the given situation. Thus the situation must be an all-inclusive and unlimited whole. Hence there can not be "different situations"; there can be only one unlimited situation controlling different experiences. Again, "A universe of experience is the precondition of a universe of discourse."[7] But this is diametrically opposed to the view that the conditioning situation is a *universe of discourse* which controls all discourse and experience. At this point Dewey himself suggests a contradiction without being clear as to its resolution.

Dewey's difficulty seems to come from treating the situation in two different ways: (1) as an experienced indivisible whole; and (2) as an "experienced world" or a "universe of experience." To identify the two terms is a curious procedure. To identify either term with the situation has serious implications. When the situation is described as a world of experience, there is need for another principle to organize the world's many and different experiences. When, on the contrary, the situation is described as a controlling indivisible whole, there is no need for another principle to supply organization, since the whole by its own nature is organizational, individual, controlling.

Near the end of *Human Nature and Conduct* he says, "Present activities are set in a whole to which they belong and which belongs to them. Even in the midst of conflict, struggle, and defeat, a con-

[4] P. 69.
[5] P. 67.
[6] P. 68.
[7] P. 68.

sciousness is possible of this enduring and comprehending whole."[8] The same Spinozistic position appears in *Art as Experience:* "A work of art elicits and accentuates this quality of being a whole and of belonging to the larger, all-inclusive whole which is the universe in which we live. . . . It explains . . . the religious feeling that accompanies intense aesthetic perception. . . . We are carried out of ourselves to find ourselves. . . . This whole is . . . felt as an expansion of ourselves."[9]

This strain of thought, which is neither rationalistic nor empiricistic, is inconsistent with Dewey's empiricistic assumption that the situation is an "experienced world" or a "universe of experience," but well expressed in his view of the situation as an all-inclusive and controlling individual whole. The individual, being its own object, must be unlimited, and may be termed God, indivisible matter, or active nature. The limited and divisible worlds of experience may then be explained by the ceaseless distinguishing and relating activity of the unlimited individual. The active realm of "distinctions and relations" might well be termed mind. Such a mind would be God's function of doing, knowing, enjoying. God would enjoy himself by means of structural worlds of experience.

It may be contended that the view just presented is a form of idealism which Dewey, as a "naturalistic empiricist," could not possibly hold. But the view is decidedly not idealism. It is non-dualistic theism, which may also be called thoroughgoing naturalism. In this naturalistic view, the whole is regarded as a material soul or nature which eternally *appears* as structural experience through functional mind; it is no system or structure, as in idealism, but the indivisible source and substance of countless experimental structures. Nevertheless, it is freely conceded that Dewey could not possibly hold to thoroughgoing naturalism as a "naturalistic empiricist." That is precisely the point. There is a contradiction between thoroughgoing naturalism and empiricism of any sort. The two positions mingle in Dewey, but he can not consistently hold to empiricism while accepting a controlling indivisible whole.

It may be objected, however, that the whole to which Dewey refers in *Human Nature and Conduct* and *Art as Experience* is not the same whole to which he refers in *Logic: the Theory of Inquiry.* In the first case the whole is indeed the unlimited whole which affords consolation to the moral life and expansive joy to esthetic perception; but in the second case the whole is merely the limited whole of concrete experience and experimental logic. But the

[8] P. 330.
[9] P. 195.

question is whether he has a logical right to believe in a plurality of situations while affirming that "distinctions and relations are instituted *within* a situation." A particular experience or problem may be bounded by a situational whole without the situational whole itself being bounded. A second experience or problem in a rearranged field may suggest the assumption of a second situational whole to bound it; but the assumption is either gratuitous or dogmatic. A person who lives in Chicago lives in the boundless universe. When he removes to New York it may be said conventionally that he has entered a "different universe" or a "different situation"; but he nevertheless remains in the same unbounded universe and situation. The unbounded universe which bounded his experiences in Chicago also bounds his experiences in New York, although his problems and field-perspectives are admittedly different.

On the basis of a non-dualistic theism, or thoroughgoing naturalism, Dewey's functional theory of mind could be released from its difficulties. Mind would still be instrumental; but it would serve the unlimited situational whole, and not merely a limited organism. It would not arise in time from a plurality of natural events, but would function eternally as the whole's activity of differentiation and integration, as the mathematical "field" through which the whole is expressed as innumerable worlds of experience. Strictly speaking, only the whole can be expressed, experienced, or known; a world is unknowable simply because it is not an object of experience or knowledge. It is rather an experimental means of knowledge, an experience of the one known object termed God or nature. We do not experience the world: the world *is* experience by which we know God. The empirical world is the means, as functional mind is the method, by which God knows himself to be immediate purpose or esthetic object.

In such a view the opposition between an unpurposeful nature and a purposeful mind, between the mind's public meanings and the organism's private demands, and between an unknown situation ("non-cognitive experience") and the known object (constructed through mind), would disappear, for the situation itself would be the immediately known object prior to mind and constructed experience.

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BOOK REVIEWS

Intelligence in the Modern World. John Dewey's Philosophy. Edited with an Introduction by JOSEPH RATNER. New York: The Modern Library. Random House, Inc. 1939. xv + 1077 pp. $1.25.

This is an exceptionally ingenious and informative volume, a tribute to the intelligence and expertness of Mr. Ratner as well as to the richness of Dewey's thought. The editor's long and polemic Introduction serves a real purpose. Since much of Dewey's earlier polemics were against idealism, and much of his later writings not polemic, Mr. Ratner has taken this occasion to point out in detail how Dewey's critical empiricism bears on the theory of science as it is found in current British realism, notably in Russell and Whitehead. He examines with finesse, if not with over-refinement, the importance of experiment for science, for experience, and (most important technically) for interpreting the locus and function of science in experience. He makes much of the contrast between ancient culture, in which mathematics, combined with the contemplation of the eternal, generated a pseudo-science called "metaphysics," and modern culture, in which the combination of mathematics and experiment has produced science properly so called. Mr. Ratner would do more justice, I think, to mathematics, Galileo, Russell, and Whitehead, if he laid more stress on the revolutionary consequences *within* experimental method which followed the invention of the instruments of precise measurement. He is not unaware of the importance of mathematical measurement in experiment, but he often deserts the cultural history of experiment (which he rightly emphasizes as one of Dewey's major concerns) to preach experiment to unregenerate mathematicians. The chief value of his essay, however, is his meticulous exposition of the distortions of experience and science in British realism, caused by the Lockean epistemology which it inherited from idealism.

Whereas the editor's Introduction is thus pre-occupied with scientific methodology in its most technical aspects, the selections from Dewey emphasize the social content and practical bearings of Dewey's philosophy. These writings are gleaned from many sources, some of them difficult of access, and are arranged with great skill. The arrangement is of exceptional importance, since it constitutes the most systematic form in which Dewey's social philosophy has yet appeared. Its chief weakness is probably its relative neglect of Dewey's philosophy of law. Two original contributions in the body of the text are worth noting, one by

Dewey (pp. 416–433), on "The Economic Basis of the New Society" in which he comments critically on an article he wrote in 1918; the other, by Mr. Ratner (pp. 525–566), in which he discusses the Plan to Outlaw War as an application of Deweyan method. Judicious selections from *Art as Experience, A Common Faith, Experience and Education, and Logic: The Theory of Inquiry* bring the selections up to date.

H. W. S.

The Philosophy of John Dewey. A Critical Study. FOLKE LEANDER. (Kungl. Vetenskaps- och Vitterhets-Samhälles Handlingar, Band 7, No. 2.) Göteborg: Elanders Boktryckeri Aktiebolag. 1939. 154 pp.

This monograph contains an exceptionally conscientious and subtle exposition of Dewey's philosophy based primarily on *Experience and Nature,* and supplemented by relevant passages from Dewey's other writings. For the most part there seems to be little difference between what the author calls phenomenological analysis and what Dewey calls an empirical account, so that the reader is led to expect a demonstration of the thesis that "behaviourism as a scientific technique can perfectly well be combined with phenomenology as a philosophic point of view, since the realm of fact studied by behaviourists lies within the scope of what is phenomenologically presented" (p. 48). But he soon becomes suspicious when he reads that "reality consists . . . of immediate phenomena" (p. 51), that experience is composed of "given presentations" and "concrete phenomena" (p. 61), and that the mind is engaged primarily in "observation." These suspicions are confirmed when he learns that Dewey's analysis of the activity of thought amounts merely to drawing "attention to the great rôle of kinesthetic elements in the phenomenology of experience" (p. 82). To assume that empirically action is "presented" as kinesthetic feelings is to miss the whole point of Dewey's behaviorism and to throw his analysis into the mistaken context of presentational immediacy.

The chief aim of the essay, however, is to criticize Dewey from the Kantian point of view. Dr. Leander is eager to welcome Dewey's general analysis of the reconstructive and instrumental function of thought in experience, provided Dewey will admit that there must be a noetic spiritual energy and quality to make "possible" the functions of intentional direction and control, which Dewey attributes to thinking; for it is impossible, so runs the ancient tale, that a purely biological and naturalistic being should be equipped with "intent," "imagination," and "control." Dr.

Leander thinks Dewey is committed to an epiphenomenalism. In turn Dewey, in addition to his accustomed rejoinder that he is engaged in explaining how we think, not how it is possible that we think, might reply that this Kantian noetic principle must be either a quality or an energy, and to make it both is confusing. If it is an energy, why could it not be "natural" and biological? On the face of it there seems to be abundant behavioristic evidence that other animals make inferences and have "intents" and that a distinctive transcendental energy in man really explains less than does rudimentary intelligence in animals.

In religious and social philosophy Dr. Leander makes two basic criticisms, both Kantian. He thinks Dewey fails to explain how the "super-individual" or social point of view is generated naturalistically; and he believes Dewey should extend his analysis of the infinite "situation," which in Dewey's analysis is an esthetic or religious object, to a recognition of the infinite ethical continuum transcending particular societies and histories.

The essay closes with a defense of the classical tradition, especially against Dewey's charge that it cultivated a love of ease, and suggests that there is at bottom a strenuous romanticism in Dewey's humanitarian faith. In justice to Dewey it should be pointed out that the aristocratic leisure and class prejudices embedded in the classic tradition are associated, according to Dewey, more with an artificial dualism than with the "love of ease."

H. W. S.

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Steinführer, Gotthold: Das transzendente Leben und Schauen unseres zentralen Ichs. Neustadt: Daniel Meininger. 1938. 205 pp.

THE JOURNAL OF SYMBOLIC LOGIC. Volume 4, Number 3. On undecidable statements in enlarged systems of logic and the concept of truth: *Alfred Tarski.* Bemerkungen zum Begriff der inhaltlichen Widerspruchsfreiheit: *Andrzej Mostowski.* Note on modal functions: *Frederic B. Fitch.*

GIORNALE CRITICO DELLA FILOSOFIA ITALIANA. Anno XX, Fasc. III–IV. L'arte come sentimento: *G. Gentile.* La sintesi esisten-

ziale: *G. Chiavacci.* La filosofia degli idealisti cattolicizzanti (fine della parte prima): *G. Durante.* L'esistenzialismo di Karl Barth: *L. Paryeson.* Strani errori nella conoscenza del pensiero medievale: *B. Nardi.* Una lettera inedita di P. Galluppi a B. D'Acquisto: *E. Di Carlo.* Intorno alla religione dello Spinoza: *P. Siwek* e *G Radetti.*

We print below a list of selected articles from the following publications:

SCIENCE AND SOCIETY. Volume III, No. 3. Pragmatism Reconsidered: An Aspect of John Dewey's Philosophy: *V. J. McGill.*

HARVARD DIVINITY SCHOOL BULLETIN. Vol. XXXVI, Number 14. The Mentality of the Hellenistic World and the After-Life: *M. I. Rostovtzeff.* Natural Religion: *H. W. Schneider.*

JOURNAL OF SOCIAL PHILOSOPHY. Volume Four, Number Four. Time Perspectives: *L. K. Frank.* Cultural Evolution and the Social Order: *J. W. Woodard.*

NOTES AND NEWS

We regret that we are unable to publish in this issue Miss Susan Stebbing's contribution to the Symposium on Dewey's *Logic.* Her manuscript was apparently lost in the mail from England. We still have hope that it may come to light and that we may be able to publish it in a later issue.

The Conference on Methods in Philosophy and the Sciences, in celebration of the eightieth birthday of Professor John Dewey, has arranged a symposium on his contributions to method in the philosophy of the arts and sciences. This meeting will be held at the New School for Social Research, 66 West 12th Street, New York City, on October 22, 1939, at 1:30 p.m. The admission fee will be $1.00. The program is as follows:

Dewey's Work in Philosophy and Logic: Professor Arthur E. Murphy (University of Illinois).

Some Further Aspects of Dewey's Philosophy: Dr. Hu Shih (Chinese Ambassador to the United States).

Dewey's Esthetics: Dr. Albert Barnes (The Barnes Foundation).

Dewey and the Social Sciences: Professor Walton Hamilton (Yale Law School).

Discussion from the floor will follow the delivery of the papers.